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ABSTRACT

A bilingual rating scale was constructed to determine teachers' ratings of attitude and proficiency among Anglo and Spanish children in Title VII classes. This instrument was designed to ascertain how teachers perceive the pupils in their classroom and how two teachers representing different backgrounds perceive children of similar and different backgrounds. Ratings were completed on a total of 373 children in 12 bilingual classrooms. Each participant was rated by a bilingual and monolingual English teacher at the beginning and at the end of the school year. The 20-item bilingual scale which was organized along three levels of abstraction was reduced, through factor analytic techniques, to three factors labeled as Spanish Orientation, Task Orientation and English Orientation. The observed high reliability in ratings between the English and bilingual teachers indicated high teachers' agreement for the three factors, and suggest that behaviors inferred by the three factors are readily observable and measurable. (CFM)

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CONSTRUCTION OF A BILINGUAL ATTITUDE RATING SCALE[1]

by:

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How do teachers perceive the pupils in their classroom? How do two different teachers in a classroom representing different backgrounds perceive youngsters of similar and different backgrounds? This paper will describe the construction of a bilingual (Spanish-English) rating scale and subsequent findings, when used to rate participants (Anglos and Spanish) in Title VII classes. It will address the following questions:

- What are the factors that can be extracted from the 20 item rating scale?
- What is the reliability between raters at various points in time?

The development of a bilingual 20 item instrument was guided by a hierarchical approach to the organization of behavior that has been discussed by Guilford. Three levels of abstractions were used: behavior items, traits and factors. Sets of concepts at an intermediate level of abstractions and generality were selected to sample the universe of behaviors in a bilingual classroom. Homogeneous scales were developed for these concepts by writing relevant items that describe specific concrete

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observable behaviors in a classroom. The operational meaning of a trait was specified by observable behavioral items. Finally, the more general and abstract factors were attained by the factor analytic technique.

Ratings were completed on a total of 373 children in 12 bilingual classrooms. Each participant was rated by a bilingual and monolingual English teacher in his/her classroom at the beginning (pre) and at the end of the school year (post). The bilingual teacher rated the participant on the Spanish version of the rating scale, while the monolingual teacher rated the participants on the English version. A total of four rating scales were completed for each participant. The pre-ratings and the post ratings were submitted to a factor to reduce the data and to identify the general and more abstract factors of the scale. Four separate principal component analyses and varimax rotations of the four ratings obtained at different points in time was made to determine whether a logical pattern of behavior exist over time and between raters.

Factor analyses revealed that three factors emerged consistently as the four ratings (Spanish and English versions of pre-post ratings) were subjected to four separate principal component analyses. The three factors were as follows:

Factor I: Spanish Orientation - Frequency of use and understanding of the Spanish language.

Factor II: Task Orientation - Attitude towards school and classroom work, e.g. completion of tasks.

Factor III: English Orientation - Frequency of use and understanding of the English language.

The first of the three factors was called Spanish Orientation because it consisted of the following items: understand/follows direc-

tions in Spanish, expresses his opinions in Spanish, ask questions in Spanish, recites in the classroom using Spanish, talks with peers in Spanish, and possesses adequate level of vocabulary usage in the second language. The second factor was labeled Task Orientation, because it contained items which tap pupil orientation towards classroom work. The second factor consisted of the following items: sticks to a task until its completion, pays attention to the teacher, tries to do better in something than he did before, shows great interest in school, and considers school success important. The third factor was called English Orientation, which taps child's frequency of use of the English language. It consisted of the following items; understands/follows directions in English, ask questions using the English language, expresses his opinions in English, and recites in the classroom in English. Interestingly enough, the factor loadings and the respective signs for each item in the scale, regardless of the time of ratings, were comparable (Tables 1-2).

Factors I and II showed the largest eigenvalues (the largest proportion of the variance), regardless of the time of the rating and the rater (English monolingual or Bilingual teacher. The first two factors represented the largest values and usually accounted for approximately 90% of the total variance. The third factor, usually accounted for only 10% of the total variance. Distribution of the eigenvalues are noted below:

- In the Enlish version pre-ratings, the eigenvalues for the first two factors was estimated at 6.87 and 6.20, accounting for 89% values of the total variance; post-ratings on the same verison showed eigenvalues of 8.11 and 5.53, accounting for 90% of the variance.

- In the Spanish version pre-ratings, eigenvalues of 7.59 and 5.89 has been estimated for the first factors, representing 91% of the total variance. Post-ratings showed eigenvalues of 7.84 and 5.54 for the first two factors, which accounted also for 91% of the total variance.

TABLE 1

VARIMAX ROTATED FACTOR MATRIX FOR POST RATINGS

ITEM NO.	FACTOR # I		II		III	
	E*	S**	E*	S**	E*	S**
1					.77	.77
2				.41		
3					.84	.85
4	.86	.84				
5			.63	.55		
6			.81	.88		
7					.88	.89
8	.89	.88				
9					.83	.67
10	.80	.88				
11	.84	.80				
12			.81	.86		
13					.88	.84
14	.91	.86				
15	.75	.75				
16			.69	.56		
17	.87	.88				
18			.89	.89		
19			.90	.86		
20	.83	.77				

*E - Ratings by Anglo Teachers
**S - Ratings by Bilingual Teachers

TABLE 2

VARIMAX ROTATED FACTOR MATRIX FOR PRE RATINGS

ITEM NO.	FACTOR # I		II		III		ITEM NO.	FACTOR # I		II		III	
	E*	S**	E*	S**	E*	S**		E*	S**	E*	S**	E*	S**
1			.71			.67	11	.88	.80				
2				.46			12				.89	.84	
3			.88			.82	13			.89			.83
4	.86	.88					14	.91	.88				
5				.69	.58		15	.84	.78				
6				.87	.80		16				.65	.63	
7			.87			.91	17	.87	.85				
8	.88	.88					18				.88	.88	
9			.821			.68	19				.87	.82	
10	.82	.83					20	.67	.68				

*E - RATINGS BY ANGLO TEACHERS
**S - RATINGS BY BILINGUAL TEACHERS

TABLE 3

SUMMARY OF EIGENVALUES (ε) AND PER CENT OF VARIATION (%)

FACTOR	PRE RATINGS				POST RATINGS			
	ENGLISH		SPANISH		ENGLISH		SPANISH	
	E	%	E	%	E	%	E	%
I SPANISH ORIENTATION	6.87	47	7.59	51	8.11	54	7.84	53
II TASK ORIENTATION	6.20	42.6	5.89	40	5.53	37	5.54	38
III ENGLISH ORIENTATION	1.48	10	1.41	10	1.51	10	1.39	9

Analysis of the correlations in the ratings between English and Bilingual teachers for pre- and post-scores revealed high associations. Correlations range from .55 to .70, (Table 4) indicative of the high agreement between the two teachers.

TABLE 4

CORRELATIONS BETWEEN RATINGS OF ENGLISH AND BILINGUAL TEACHERS

	Spanish Orientation F-I	Task Orientation F-II	English Orientation F-III
Pre			
F-I	.66		
F-II		.60	
F-III			.76
Post			
F-I	.70		
F-II		.55	
F-III			.55

This presentation has described the construction of a bilingual rating scale designed to measure pupils' attitude/proficiency, based on teacher's observation of pupil behavior in the classroom. The 20-item bilingual scale organized along three levels of abstractions, has been reduced to three factors labeled as Spanish Orientation, Task Orientation and English Orientation, through factor analytic techniques. The observed high reliability in ratings between the English and Bilingual teachers indicated high teachers' agreement for the three factors, and suggest that behaviors inferred by the 3 factors are readily observable and measurable.

ESCALA CLASIFICADORA DE LA LENGUA Y CONDUCTA

CLASIFIQUE LA ACTITUD DEL NIÑO Y SU ABILIDAD LINGUISTICA EN UNA ESCALA DE CINCO-PUNTOS. LA ESCALA DE CINCO-PUNTOS REPRESENTA LOS GRADOS DE FRECUENCIA, BASADOS EN SUS OBSERVACIONES CON RESPECTO A LA CONDUCTA DEL NIÑO. BASE SU EVALUACION EN SU PRIMERA IMPRESION. LOS CINCO-PUNTOS DE LA ESCALA SON LOS SIGUIENTES:

5 = CASI SIEMPRE
4 = FREQUENTEMENTE
3 = ALGUNAS VECES
2 = DE VEZ EN CUANDO
1 = NUNCA

MARQUE SOLAMENTE UNO DE LOS CINCO ALTERNITIVOS POR CADA UNO DE LOS SIGUIENTES VEINTES PUNTOS. MARQUE CON UNO CIRCULO ○ UNO DE LOS CINCO ALTERNITIVOS (5 0 4 0 3 0 2 0 1) QUE MEJOR DESCRIBE EL NIÑO.

						FACTOR	
						Pre	Post
1. ENTIENDE Y SIGUE INSTRUCCIONES EN INGLES.	5	4	3	2	1	III	III
2. APARENTA ESTAR ORGULLOSO DE SU CULTURA.	5	4	3	2	1	II	II
3. USA EL INGLÉS AL HACER PREGUNTAS EN LA CLASE.	5	4	3	2	1	III	III
4. ENTIENDE Y SIGUE INSTRUCCIONES EN ESPAÑOL.	5	4	3	2	1	I	I
5. PRESTA ATENCIÓN AL MAESTRO DE HABLA HISPANA.	5	4	3	2	1	II	II
6. PERSERVERA EN SU TRABAJO HASTA EL FINAL AUNQUE SEA DIFICIL.	5	4	3	2	1	II	II
7. HABLA LIBREMENTE CON SUS COMPAÑEROS USANDO LA LENGUA. INGLÉS	5	4	3	2	1	III	III
8. EXPRESA SUS OPINIONES EN ESPAÑOL.	5	4	3	2	1	I	I
9. PARTICIPA LIBREMENTE EN INGLÉS EN EL SALÓN DE CLASES.	5	4	3	2	1	III	III
10. USA EL ESPAÑOL AL HACER PREGUNTAS EN LA CLASE.	5	4	3	2	1	I	I
11. ENTIENDE FRASES COMUNES EN LA SEGUNDA LENGUA.	5	4	3	2	1	I	I
12. HA MEJORADO EN SU TRABAJO EN EL SALÓN.	5	4	3	2	1	II	II
13. EXPRESA SUS OPINIONES EN INGLÉS.	5	4	3	2	1	III	III
14. HABLA LIBREMENTE CON SUS COMPAÑEROS USANDO LA LENGUA ESPAÑOLA.	5	4	3	2	1	I	I
15. PARTICIPA LIBREMENTE EN EL SALÓN DE CLASES EN ESPANOL.	5	4	3	2	1	I	I
16. PRESTA ATENCION AL MAESTRO DE HABLA INGLESA.	5	4	3	2	1	II	II
17. UTILIZA LA SEGUNDA LENGUA EN LA CLASE.	5	4	3	2	1	I	I
18. MUESTRA GRAN INTERES EN SU TRABAJO DE LA CLASE.	5	4	3	2	1	II	II
19. CONSIDERA IMPORTANTE TRIUNFAR EN LA ESCUELA.	5	4	3	2	1	II	II
20. EL NIVEL DEL VOCABULARIO QUE USA EN LA SEGUNDA LENGUA ES ADECUADO.	5	4	3	2	1	I	I

Rate the child's attitude and language proficiency skills on a five-point scale. The five-point scale represents degrees of frequency, based on your observations of the child's behavior. Base your ratings on your first impressions. The five point scale is keyed as follows:

5 = Very Often
4 = Frequently
3 = Sometimes
2 = Occasionally
1 = Never

Mark only one out of the five choices (ratings) for each of the following 20 items by putting a circle ○ around the appropriate rating number (5 or 4 or 3 or 2 or 1) which best describes the child. Remember to put a circle around one of the ratings to all the 20 items.

							FACTOR (F)	
							Pre	Post
1.	Understands and follows directions in English.	5	4	3	2	1	II	III
2.	Appears to be proud of his background.	5	4	3	2	1		
3.	Asks questions in the classroom, using English.	5	4	3	2	1	II	III
4.	Understands and follows directions in Spanish.	5	4	3	2	1	I	I
5.	Pays attention to the Spanish teacher.	5	4	3	2	1	III	II
6.	Sticks with job until finished, even if difficult.	5	4	3	2	1	III	II
7.	Talks freely with peers using English.	5	4	3	2	1	II	III
8.	Expresses his opinions in Spanish.	5	4	3	2	1	I	I
9.	Recites (participates) in classroom easily in English.	5	4	3	2	1	II	III
10.	Asks questions in the classroom, using Spanish.	5	4	3	2	1	I	I
11.	Understands functional phrases in the second language.	5	4	3	2	1	I	I
12.	Tries to do better in something than he did before.	5	4	3	2	1	III	II
13.	Expresses his opinions in English.	5	4	3	2	1	II	III
14.	Talks freely with peers using Spanish.	5	4	3	2	1	I	I
15.	Recites (participates) in classroom easily in Spanish.	5	4	3	2	1	I	I
16.	Pays attention to the English teacher.	5	4	3	2	1	III	II
17.	Uses the second language in the classroom.	5	4	3	2	1	I	I
18.	Shows great interest in his classwork.	5	4	3	2	1	III	II
19.	Considers it important to do well in school.	5	4	3	2	1	III	II
20.	Level of vocabulary usage in the second language adequate.	5	4	3	2	1	I	I